

1 **AMENDMENTS TO THE CLAIMS**

2 Please amend the claims as indicated by the following claim listing.

3

4 **Claim Listing:**

5 1. (currently amended): A ~~computer implemented method system~~ comprising:

6 means for defining a set of reduced regular expressions for particular
7 patterns in strings, wherein the set of reduced regular expressions has less
8 expressiveness than a set of regular expressions; and

9 means for learning, from a training set, a knowledge base that uses the
10 reduced regular expressions to resolve ambiguity based upon the strings in which
11 the ambiguity occurs, wherein the learning means is configured to perform
12 includes transformation sequence learning to create a set of rules that use the
13 reduced regular expressions to resolve ambiguity based upon the strings in which
14 the ambiguity occurs.

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17 2. (currently amended): A ~~computer implemented method system~~ as
18 recited in claim 1, wherein the set of reduced regular expressions are defined over
19 a finite alphabet Σ , wherein the alphabet is a union of multiple sets of distinct
20 classes.

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22 3. (currently amended): A ~~computer implemented method system~~ as
23 recited in claim 1, wherein the training set comprises a labeled corpus.

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1 4. (currently amended). A ~~computer implemented method system~~ as
2 recited in claim 1, wherein the set of reduced regular expressions specify types of
3 patterns that are allowed to be explored when learning from the training set.

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5 5. (currently amended): A ~~computer implemented method system~~ as
6 recited in claim 1, wherein the learning means includes means for applying a set of
7 very reduced regular expressions that are a proper subset of the reduced regular
8 expressions.

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10 6. (currently amended): A ~~computer implemented method system~~
11 ~~having computer executable instructions that, when executed on a processor,~~
12 ~~perform a method comprising:~~

13 means for defining a set of reduced regular expressions for particular
14 patterns in strings, wherein the set of reduced regular expressions has less
15 expressiveness than a set of regular expressions; and

16 means for learning, from a training set, a knowledge base that uses the
17 reduced regular expressions to resolve ambiguity based upon the strings in which
18 the ambiguity occurs, wherein the set of reduced regular expressions specify types
19 of patterns that are allowed to be explored when learning from the training set.

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21 7. (currently amended): A ~~computer readable medium system~~ as
22 recited in claim 6, wherein the set of reduced regular expressions are defined over
23 a finite alphabet Σ , wherein the alphabet is a union of multiple sets of distinct
24 classes.

1 8. (currently amended): A computer-implemented method system as
2 recited in claim 6, wherein the training set comprises a labeled corpus.

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4 9. (currently amended): A computer-implemented method system as
5 recited in claim 6, wherein the learning means comprises means for transformation
6 sequence learning to create a set of rules that use the reduced regular expressions
7 to resolve ambiguity based upon the strings in which the ambiguity occurs.

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9 10. (currently amended): A computer-implemented method system as
10 recited in claim 6, wherein the learning means includes means for applying a set of
11 very reduced regular expressions that are a proper subset of the reduced regular
12 expressions.

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14 11. (currently amended): A computer-implemented method system
15 comprising:

16 means for receiving a string with an ambiguity site;
17 means for applying reduced regular expressions to describe a pattern in the
18 string, wherein the reduced regular expressions:

19 are included in a knowledge base that is learned from a training set;
20 have less expressiveness than regular expressions; and
21 specify types of patterns that are allowed to be explored when the
22 knowledge base is learned; and
23 selecting one of the reduced regular expressions to resolve the ambiguity
24 site.

1 12. (currently amended): A ~~computer-implemented method system~~ as
2 recited in claim 11, wherein the applying means is configured to includes applying
3 apply a set of very reduced regular expressions that are a proper subset of the
4 reduced regular expressions.

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6 13. (currently amended): A ~~computer-implemented method system~~
7 comprising means for:

8 receiving a string with an ambiguity site;
9 applying reduced regular expressions to describe a pattern in the string,
10 wherein:

11 the applying includes applying a set of very reduced regular
12 expressions that are a proper subset of the reduced regular expressions; and
13 the reduced regular expressions have less expressiveness than
14 regular expressions; and
15 selecting one of the reduced regular expressions to resolve the ambiguity
16 site.

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18 14. (currently amended): A ~~computer readable medium having~~
19 ~~computer-executable instructions that, when executed on a processor, perform a~~
20 ~~method system comprising:~~

21 means for receiving a string with an ambiguity site;
22 means for applying reduced regular expressions to describe a pattern in the
23 string, wherein the reduced regular expressions:
24 the reduced regular expressions are included in a knowledge base
25 that is learned from a training set;

1 have less expressiveness than regular expressions; and
2 the reduced regular expressions specify types of patterns that are
3 allowed to be explored when the knowledge base is learned; and
4 means for selecting one of the reduced regular expressions to resolve the
5 ambiguity site.

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7 15. (currently amended): A ~~computer readable medium system~~ as
8 recited in claim 14, wherein the applying means is configured to apply includes
9 applying a set of very reduced regular expressions that are a proper subset of the
10 reduced regular expressions.

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12 16. (currently amended): A ~~computer readable medium having~~
13 ~~computer executable instructions that, when executed, direct a computer to system~~
14 comprising:

15 means for reading ~~read~~ a training set;
16 means for constructing ~~construct~~ a graph having a root node that contains a
17 primary position set of the training set and multiple paths from the root node to
18 secondary nodes that represents a reduced regular expression that has less
19 expressiveness than a regular expression, the secondary node containing a
20 secondary position set to which the reduced regular expression maps;

21 means for scoring ~~score~~ the secondary nodes to identify a particular
22 secondary node; and

23 means for identifying ~~identify~~ the reduced regular expression that maps the
24 path from the root node to the particular secondary node.

1 17. (currently amended): A training system comprising:
2 a memory to store a training set;
3 a processing unit; and
4 means a disambiguation trainer, executable on the processing unit, to for:
5 defining define a set of reduced regular expressions for particular
6 patterns in strings of the training set, wherein the set of reduced regular
7 expressions has less expressiveness than a set of regular expressions; and
8 learning learn a knowledge base that uses the reduced regular
9 expressions to describe the strings wherein the reduced regular expressions
10 specify types of patterns that are allowed to be explored when the
11 knowledge base is learned from the training set.

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13 18. (original): A training system as recited in claim 17, wherein the
14 training set comprises a labeled corpus.

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16 19. (original): A training system as recited in claim 17, wherein the
17 disambiguator trainer employs transformation sequence learning to create a set of
18 rules that use the reduced regular expressions to describe the strings.

19
20 20. (currently amended): A system comprising:
21 a memory to store a knowledge base that uses reduced regular expressions
22 to resolve ambiguity based upon strings in which the ambiguity occurs, wherein:
23 the knowledge base is learned from a training set using the reduced
24 regular expressions[[,]];
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1 the reduced regular expressions specify types of patterns that are
2 allowed to be explored when the knowledge base is learned; and
3 the reduced regular expressions have less expressiveness than
4 regular expressions;
5 a processing unit; and
6 means a disambiguator, executable on the processing unit, to for:
7 receiving receive a string with an ambiguity site; and
8 applying apply a reduced regular expression from the knowledge
9 base that describes a pattern in the string to resolve the ambiguity site.

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